

## CLAIMS

What is claimed is:

- 1 1. An apparatus, comprising:  
2 a transaction facilitator;  
3 a split-completion transaction arbiter coupled to the transaction facilitator;  
4 and  
5 a split-completion buffer coupled to the transaction facilitator.
- 1 2. The apparatus of claim 1, further comprising:  
2 a split-completion commitment limit register;  
3 a total outstanding split-completion register; and  
4 a next split-completion size register.
- 1 3. The apparatus of claim 1, further comprising more than one bus coupled to said  
2 transaction facilitator.
- 1 4. The apparatus of claim 1, wherein said transaction facilitator comprises an  
2 initiator and a completer.
- 1 5. The apparatus of claim 1, wherein said split-completion arbiter comprises a  
2 fairness determiner.
- 1 6. The apparatus of claim 5, wherein the fairness determiner comprises a round robin  
2 determiner.
- 1 7. The apparatus of claim 5, wherein the fairness determiner comprises a fixed-  
2 priority determiner.
- 1 8. The apparatus of claim 1, wherein said split-completion transaction arbiter  
2 comprises a latency counter coupled to said transaction facilitator.
- 1 9. The apparatus of claim 1, wherein said split-completion buffer comprises:  
2 a first-bus buffer coupled to a first split-completion transaction arbiter; and

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a second-bus buffer coupled to a second split-completion transaction  
arbiter.

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- 1 10. A method, comprising:
  - 2 receiving a transaction;
  - 3 storing a split-completion for the transaction;
  - 4 arbitrating the split-completion; and
  - 5 initiating a split-completion transaction in response to said arbitrating the
  - 6 split-completion.
- 1 11. The method of claim 10 further comprising responding to the transaction with a  
2 split response.
- 1 12. The method of claim 10 wherein said receiving a transaction comprises receiving  
2 part of an initiated sequence of transactions.
- 1 13. The method of claim 10 wherein said storing a split-completion for the transaction  
2 comprises storing a sequence identification and a command identification.
- 1 14. The method of claim 13 wherein said storing a split-completion for the transaction  
2 further comprises storing data corresponding to the command identification.
- 1 15. The method of claim 10 wherein said arbitrating the split-completion comprises  
2 determining a ranking of a split-completion transaction for the split-completion.
- 1 16. The method of claim 10 wherein said arbitrating the split-completion comprises  
2 limiting the duration of a split-completion transaction for the split-completion.
- 1 17. The method of claim 10 wherein said initiating a split-completion transaction  
2 comprises transmitting a completion message.
- 1 18. The method of claim 10 wherein said initiating a split-completion transaction  
2 comprises forwarding a split-completion.

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- 1 19. A system, comprising:  
2 a requester;  
3 an arbiter bridge coupled to said requester;  
4 a microprocessor coupled to said arbiter bridge; and  
5 a target device coupled to said arbiter bridge.
- 1 20. The system of claim 19, further comprising a bus arbiter coupled to said arbiter  
2 bridge.
- 1 21. The system of claim 19, wherein said requester comprises a second  
2 microprocessor coupled to said arbiter bridge.
- 1 22. The system of claim 19, wherein said requester comprises:  
2 a sequence initiator coupled to said arbiter bridge; and  
3 a sequence requester coupled to said arbiter bridge.
- 1 23. The system of claim 19, wherein said arbiter bridge comprises:  
2 a transaction facilitator;  
3 a split-completion transaction arbiter coupled to the transaction facilitator;  
4 and  
5 a split-completion buffer coupled to the transaction facilitator.
- 1 24. The system of claim 19, wherein said target device comprises a memory device  
2 coupled to said arbiter bridge.

1 25. A machine-readable medium containing instructions, which when executed by a  
2 machine, cause said machine to perform operations, comprising:  
3 receiving a transaction;  
4 storing a split-completion for the transaction;  
5 arbitrating the split-completion; and  
6 initiating a split-completion transaction in response to said arbitrating the  
7 split-completion.

1 26. The machine-readable medium of claim 25 wherein said receiving a transaction  
2 comprises receiving part of an initiated sequence of transactions.

1 27. The machine-readable medium of claim 25 wherein said storing a split-completion  
2 for the transaction comprises storing a sequence identification and a command  
3 identification.

1 28. The machine-readable medium of claim 25 wherein said arbitrating the split-  
2 completion comprises determining a ranking of a split-completion transaction for  
3 the split-completion.

1 29. The machine-readable medium of claim 25 wherein said initiating a split-  
2 completion transaction comprises transmitting a completion message.

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